

# Report of organ offers linked with instant messaging data provides a basis for quality improvement

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## OBJECTIVE

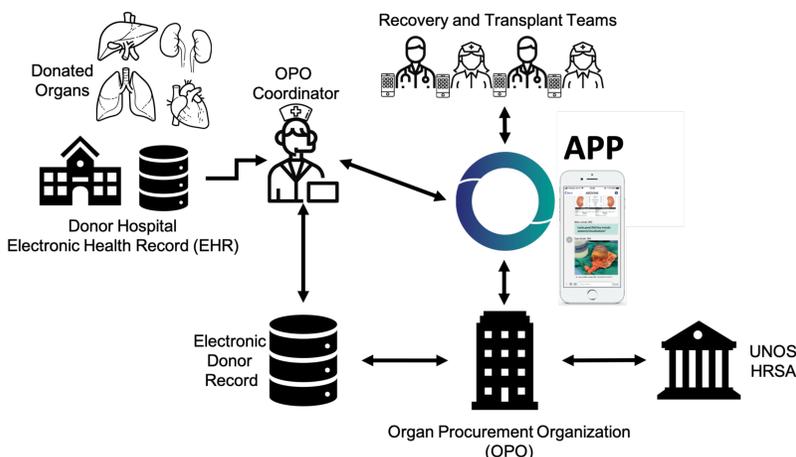
Will real-time chat data improve the analysis of past organ offers?

## INTRODUCTION

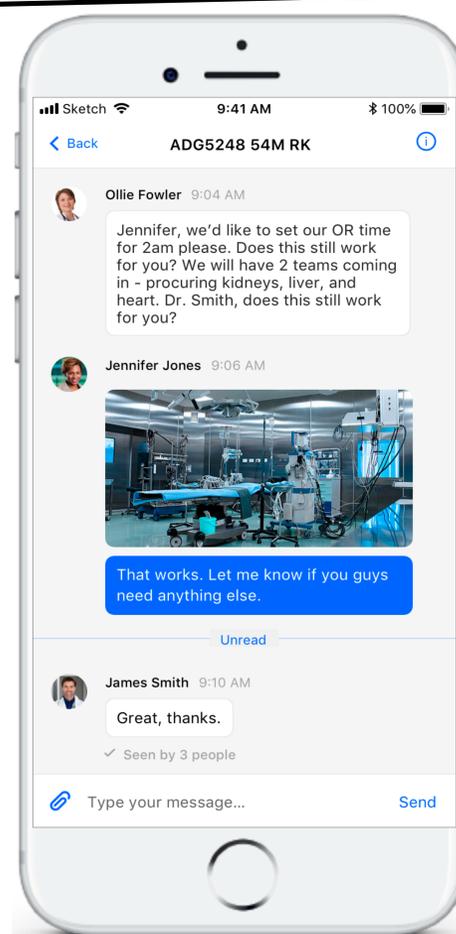
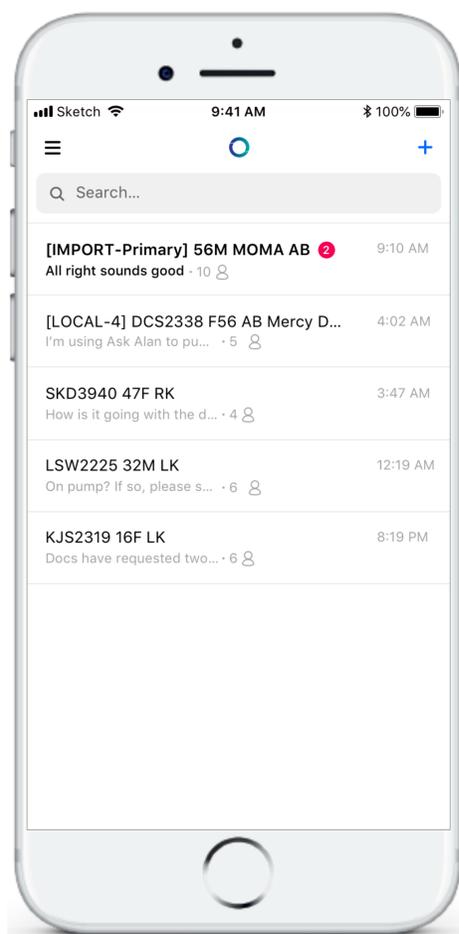
Thousands of viable organs are discarded every year with incorrect or inappropriate reasons for declination. One limitation on organ transplantation is the time-sensitive, onerous, and disorganized determination of donor/recipient match quality. Misconstrued decline reasons are not helpful when analyzing retrospectively or constructing quality improvement programs for transplant centers and organ procurement organizations.

## Plan-Do-Study-Act

A performance improvement methodology was utilized to design and implement a dedicated mobile communication application (APP) developed by OmniLife, Inc. The APP was used for primary communication among procurement and transplant staff during donor cases in Iowa from July 2017 – December 2019. Procurement and transplant teams in Iowa evaluated the UNOS Report of Organ Offers data on a monthly basis. The report was supplemented with the documentation of real-time communication.



Organ	Offer Sequence	KDPI	EPTS	Initial Offer	Acceptance	Distance	Primary	Transplanted	Declined
KI	54	15	26	Provisional Yes (PY)	PY	Local	N	N	
KI	51	12	26	PY	PY	Local	N	N	
KI	30	85	26	No (N)	N	National	Yes (Y)	Y	Not considered for transplant
KI	45	68	54	N	N	Regional	Y	Y	Recipient too far away for timing purposes.
KI	56	55	30	PY	Y	Local	Y	Y	
KI	16	17	92	PY	PY	Local	N	N	
KI	51	46	92	PY	PY	Local	N	N	
KI	24	68	90	N	N	Regional	Y	Y	Patient ill, unavailable, refused, or temporarily unsuitable
KI	23	55	91	PY	N	Local	Y	Y	Donor size/weight
KI	21	59	90	PY	PY	Local	Y	N	
KI	45	79	90	PY	N	Local	Y	N	Donor age or quality



**Figure 1.** An example UNOS Report of Organ Offers is shown above with highlighted colors Green = transplanted, Gray = never primary, Orange = transplanted someone else same center, and Red = transplanted elsewhere after decline. Particularly with Red offers, the procurement and transplant programs can look to data captured in the APP (e.g. messages, read receipts, etc.) to reconstruct the case events and timeline. The offer sequence was the number of offers needed to decline before primary opportunity. The kidney donor profile index (KDPI) summarizes the donor risk, higher is worse. Estimated post transplant score (EPTS) summarizes the candidate risk of death, higher is worse.

## RESULTS

Teams reported enhanced quality of their monthly retrospective review of the report of organ offers when supplemented with real-time documentation from APP. Transplant and procurement directors reported that they received a detailed, unbiased, and factual account of what had transpired during each organ offer. Teams highlighted that having real-time documentation was particularly useful for organ offers that were declined inappropriately or transplanted with complications. The transplant administrators substantiated the need for center-wide organ acceptance standards and processes. The extra delineation resulted in increased buy-in from clinical teams. This study is ongoing.

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Research reported in this publication was supported by the National Library of Medicine of the NIH, award number: R43LM012575. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH. This work is under peer review.